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## Livestock Pest Control Guide

Cooperative Extension

*South Dakota State University*

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# Livestock Pest Control Guide

*Livestock Pests Reduce Production, Cut Profits;  
Modern Chemicals Facilitate Pest Control.*

## PRECAUTIONS

Insecticides are poisons; handle and store them with care.  
 Don't exceed the recommended concentrations.  
 Don't use sprays or dips if an oily or gummy layer forms after mixing.  
 Don't contaminate feed, feed containers or watering troughs.  
 Don't use oil preparations as sprays on livestock.  
 Make sure insecticides are thoroughly mixed before spraying or dipping.

Pest	INSECTICIDE (Use any one of the following)	Method of mixing 100 gallons of spray using commonly available formulations	Concentration of finished spray
		With wettable powders, one lb. per 100 gallons of water is equal to $\frac{1}{2}$ ounce per three gallons of water. With emulsifiable concentrates, one gal. per 100 gallons of water is equal to $2\frac{1}{2}$ tablespoons per gallon of water.	
<b>CATTLE LICE</b> Dairy Cattle	Activated pyrethrum Rotenone	As directed on the labels. 1 lb. of 5% W.P. (repeat in 15 days)	0.006%
<b>Beef Cattle</b> Same as for dairy;	or — <ul style="list-style-type: none"> <li>malathion</li> <li>lindane</li> <li>Co-Ral (Bayer 21/199)</li> <li>methoxychlor</li> <li>toxaphene</li> <li>ronnel (Korlan)</li> </ul>	1 gal. of 57% E.C. or 2 lbs. of 25% W.P. 1 pint of 20% E.C. or 2 lbs. of 25% W.P. 16 lbs. of 25% W.P. 2 gals. of 25% E.C. or 8 lbs. of 50% W.P. 5 pints of 60% E.C. or 8 lbs. of 50% W.P. 16 lbs. of 25% W.P.	0.32—0.50% 0.03% 0.5% 0.5% 0.5% 0.5%
		W.P. refers to wettable powders. E.C. refers to emulsifiable concentrates.	
When using sprays it is important to wet the animals thoroughly; including the under-line. Dusts of rotenone, malathion, lindane, methoxychlor or toxaphene may also be used. Dusting is a good method when few animals are to be treated or for dairy cattle. The dust should be rubbed into the hair coat with the fingers.			
<b>SPRAYS ON STOCK FOR FLY CONTROL</b> (Horn flies, stable flies, mosquitoes) Dairy Cattle	activated pyrethrums *(pyrethrum plus piperonyl butoxide or MGK 264.) methoxychlor (for horn flies) malathion (for horn flies)	As directed on the labels 1 tablespoon of 50% W.P. per animal. (Rub onto back and neck) 3 tablespoons of 5% dust or 4 tablespoons of 4% dust per animal. (Rub onto back and neck.) Do not apply during milking or within 5 hours of milking time. Repeat at 10-14 day intervals.	Do not use spray. Do not use spray.
	*May be used with repellents such as tabatrex MGK 326, MGK 11 or Crag repellent (butoxypoly propylene glycol)		

Pest	INSECTICIDE (Use any one of the following)	Method of mixing 100 gallons of spray using commonly available formulations	Concentration of finished spray
Beef Cattle Same as for dairy;	methoxychlor	2 gals. of 25% E.C. or 8 lbs. of 50% W.P.	0.5%
or	toxaphene	6 pints of 60% E.C. or 8 lbs. of 50% W.P.	0.5%
	malathion	1 gal. of 57% E.C. or 2 lbs. of 25% W.P.	0.5%
	Co-Ral (Bayer 21/199)	16 lbs. of 25% W.P.	0.5%
	Ronnel (Korlan)	16 lbs. of 25% W.P.	0.5%
SPRAYS ON BUILDINGS FOR FLY CONTROL (house flies, stable flies)	malathion	2 gals. of 57% E.C. or* 40 lbs. of 25% W.P. Spray may be baited with syrup, molasses or sugar.	1.0%
Dairy Buildings	methoxychlor	10 gals. of 25% E.C. or 40 lbs. of 50% W.P.	2.5%
	activated pyrethrums	As directed on labels	
	diazinon	2 gals. of 25% E.C. or 16 lbs. of 25% W.P.	0.5%
Buildings other than dairy. Same as for dairy, or	ronnel (Korlan)	4 gals. of 12% E.C. or* 16 lbs. of 25% W.P. Spray may be baited with syrup, molasses or sugar.	0.5%
	toxaphene	4 gals. of 45% E.C. or 32 lbs. of 50% W.P.	2.0%

Hornflies are controlled easily by any of the insecticides listed above. Cable-type backrubbers, as described in South Dakota Expt. Station Bulletin 418, are effective, inexpensive, and easier to use than sprayers, especially for hornfly control. Treadle sprayers may be used with activated pyrethrum for the control of stable flies and house flies on cattle. Sprays as outlined for hornflies may give some relief. Treadle sprayers are best suited to dairy herds. Directions for building and using these applicators are available from the Entomology Department.

Stable flies are difficult to control by re-

sidual applications to buildings. Sanitation is very important for house fly control in any case, but where resistance is encountered it is especially important. In some cases frequently repeated space sprays to kill the insect on the wing may be resorted to. Insecticide vaporizers in closed buildings have been successful against non-resistant insects. These devices must be carefully controlled by thermostats and be properly placed to avoid health hazards—the margin between effectiveness and hazard is not too great.

Diazinon, malathion, dipterex, ronnel (Korlan) and DDVP may be used as baited spot

sprays applied to fly resting places or in dry baits with granulated sugar. The dry baits may be obtained ready to use and should be applied as directed on the label. A prepared liquid bait known as Banafly (a DDVP preparation) has been found to be effective. Sanitation for fly control involves destruction of the breeding places of the fly larvae. The maggots of stable flies live in well-rotted feed residues and old straw bottoms. House fly maggots live in manure-soaked bedding and other well-rotted organic matter. The most effective sanitation measure is the frequent removal of fly breeding materials.

CATTLE GRUBS Dairy Cattle	rotenone	0.75% to 1.5% dust rubbed well into hair coat and around warbles at rate of three ounces per animal. 7.5 lbs. of 5% W.P. (Apply with power sprayer as forceful driving spray.) As a wash. (1 lb. of 5% W.P. to 10 gals. of water). Use from 1 pint to 1 quart per animal. Scrub the wash into the animal's skin from shoulder to hip with stiff-bristled brush.	0.045%
Beef cattle Same as for dairy;	ronnel (Trolene) (ET-57)	One bolus for each 300 pounds* of animal weight—to be given in the fall.	
or	Co-Ral (Bayer 21/199)	16 lbs. of 25% W.P. (apply at rate of about one gallon of mixture per head.) Use sprayer pressures of 250 lbs. per square inch and greater. Apply in late summer or fall. Apply very thoroughly.	0.5%

\*With systemics (Co-Ral and ronnel), do not treat calves just weaned; cattle that are

ill or just after shipment or a change in feed. Do not treat calves under three months

of age or cattle being finished for slaughter within 60 days.

Pest	INSECTICIDE (Use any one of the following)	Method of mixing 100 gallons of spray using commonly available formulations	Concentration of finished spray
<b>SCREW WORM</b>	Smear 62 Smear 335 Smear 1038 Co-Ral (Bayer 21/199)  ronnel (Korlan)	Isolate infested animals and apply smear with paint brush—Take care to get smear deep into wound.  16 lbs. of 25% W.P. (Spot treat wounds). Co-Ral Spot Treater (0.5% dust) 5% smear-wound treatment or 16 lbs. of 25% W.P.	0.5% 0.5% 0.5%
<b>HOG LICE</b>	lindane methoxychlor toxaphene chlordane ronnel (Korlan)  Co-Ral (Bayer 21/199)	1 quart of 20% E.C. or 2 lbs. of 25% W.P. 2 gals. of 25% E.C. or 8 lbs. of 50% W.P. 1 gal. of 45% E.C. or 8 lbs. of 50% W.P. 1 gal. of 45% E.C. or 8 lbs. of 50% W.P. 16 lbs. of 25% W.P. Repeat after 2-3 weeks if necessary 16 lbs. of 25% W.P.	0.06% 0.5% 0.5% 0.5% 0.5% 0.5%

Hog lice may be controlled by dipping or dusting, though spraying is more convenient. The same chemicals and concentra-

tions are suitable for dipping as for spraying. Low or high pressure spray equipment may

be used. Thoroughness in covering each animal and in treating all animals in the herd is of great importance.

<b>HOG MANGE</b>	BHC lindane	20 lbs. of 6% gamma isomer W.P. 5 lbs. of 25% W.P.	0.15%
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Spray sows about 30 to 40 days before farrowing. Do not use BHC within 60 days of

slaughter. Thoroughness of treatment of every animal in the herd is of greatest im-

portance. Low or high pressure spray equipment may be used.

<b>SHEEP KEDS (Ticks)</b>	lindane methoxychlor toxaphene Co-Ral (Bayer 21/199) dieldrin	2 lbs. of 25% W.P. 8 lbs. of 50% W.P. 8 lbs. of 50% W.P. 8 lbs. of 25% W.P. 1.5% dust in power dusters. (At least 90 days before slaughter).	0.06% 0.5% 0.5% 0.25%
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When spraying for the control of sheep ticks or "keds," the fleece should be wetted thoroughly. For this purpose it is recommended that a household detergent washing powder be added to the spray mixture, especially if pressures under 100 pounds are used. Sheep should be sprayed just after shearing. When ewes are shorn while still

nursing lambs, the ticks will move to the lambs, hence it is important to treat lambs also.

Dips are more effective than sprays for controlling sheep ticks. Rotenone at 1/2 pound of 5% powder per 100 gallons of water is effective and inexpensive. The mixtures for methoxychlor and toxaphene

wettable powders is four pounds of the 50% powder per 100 gallons of water. If an emulsifiable concentrate is used, add one gallon of the 25% concentrate or 1/2 gallon of the 40 to 50% concentrate per each 100 gallons of water. Lindane dips should be prepared with 13 ounces of the 25% wettable powder or one pint of the 20% emulsifiable concentrate per 100 gallons of water.

Pest	INSECTICIDE (Use any one of the following)	Method of mixing 100 gallons of spray using commonly available formulations	Concentration of finished spray
<b>SHEEP SCAB</b>	lindane	1 quart of 20% E.C. or 2 lbs. of 25% W.P.	0.06% dip
<p>Sheep infested with mange or "scab" are subject to quarantine by the state livestock sanitary board until they have been dipped in lime-sulfur, nicotine sulfate or lindane. Report all cases of sheep scab to a veterinarian or the livestock sanitary board at once.</p>			
<b>SHEEP BOT OR SHEEP HEAD GRUB</b>	saponated cresol.	3% solution. Irrigate nasal passages with one fluid ounce and at 35 pounds of pressure per square inch.	
<b>WOOL MAGGOTS</b>	Smear 62 Smear 335 Smear 1038 lindane dieldrin Co-Ral (Bayer 21/199)	Apply smear as for screw worm. Shear infested areas before application.  2 lbs. of 25% W.P. or 1 quart of 20% E.C. 2.5 lbs. of 15% W.P. 8 lbs. of 25% W.P.	  0.06% 0.05% 0.25%

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